9.0 COMPARISON OF ALTERNATIVES

Table 12 shows a summary of the comparison of the five proposed alternatives.

9.1 Threshold requirements

All five alternatives could meet the four threshold requirements. However, for Alternatives 1 or 2, compliance with cleanup standards would be met only if the alternative is determined to be permanent to the maximum extent practicable.

9.2 Other requirements

Use permanent solutions to the maximum extent practicable

Protectiveness: Alternative 1 ranks the lowest in protectiveness since no PCBs would be removed from the soil and would just be contained on Site. Alternative 2, where PCBs would be immobilized and contained on Site, ranks higher than Alternative 1. Alternatives 4 and 5 would rank the highest because all PCBs would be removed from the Site and cleanup levels would be attained at the point of compliance for the City Parcel property. Alternative 3 would rank lower than Alternative 4 since the building would not be demolished immediately and contaminated soils underneath the building would still exist.

Permanence: Alternative 1 ranks the lowest in permanence as this alternative would not reduce the toxicity, mobility or volume of the PCBs in soils. Since the mobility of PCBs would be reduced by Alternative 2, this alternative would rank higher than Alternative 1. Alternative 3 ranks much higher than Alternative 2 since PCB-contaminated soils that are above cleanup levels would be removed and disposed off-site in a TSCA permitted landfill; PCBs in soils underneath the building would still remain until removal is completed upon building demolition. Alternative 4 ranks higher than alternative 3; all soils with PCB concentrations above cleanup level in the City Parcel property would be excavated and disposed off-site. The alternative that ranks the highest in terms of permanence is Alternative 5 since the PCBs in soils that are excavated would be permanently destroyed by the incineration process.

Cost: Table 13 is a summary of the costs of the five alternatives. The cost items considered for each of the alternatives are given in Tables 6 through 10. The cost for removing the DW2 and the underground storage tank would be higher for Alternative 3 since the work would have to be conducted inside the building and would require the use of special equipment. In addition, the floors and walls that would be destroyed during the removal would have to be replaced. Alternative 5 is the most costly of the alternatives because of the incineration. Alternative 1 is the least costly; Alternative 2 costs more than Alternative 1. Alternative 4, which would involve upfront building demolition prior to soil excavation and off-site disposal, costs less than Alternative 3 which would defer the removal of the building and additional soil cleanup to a later time (assumed to be after 10 years). Building demolition would also make the removal of DW2 and the

underground storage tank easier, thus reducing the cost, and the cost of replacing the floors/walls would be eliminated.

Long-term Effectiveness: Following the guidance under WAC 173-340-360(3)(e)(iv), Alternative 5, which involves destruction of PCBs, ranks the highest in terms of long-term effectiveness . Alternative 4 that involves off-site disposal in an engineered, lined, and monitored facility ranks next to Alternative 5. Alternative 3, which is Alternative 4 without immediate building removal, ranks a little less than Alternative 4. Alternative 1 which is on-site isolation of containment ranks the lowest. Alternative 2, though this involves immobilization of PCBs but is more of on-site containment with attendant engineering controls, ranks higher than Alternative 1 but less than Alternative 3.

Management of short-term risks: Alternatives 4 and 5 rank the lowest in terms of short-term risks because of building demolition, soil excavation, and the soil transport to the landfill or to the incinerator. Alternative 3 scores a little higher since no immediate building demolition would be involved. Alternative 2, which involves short-term risks associated with the soil mixing, would be higher than Alternative 3. Alternative 1 ranks the highest in terms of management of short-term risk since no soil excavation and transportation are involved.

Implementability: Alternative 1 is the easiest to implement. Alternative 2 ranks next, followed by Alternatives 4 and 5. Implementation of Alternative 3 which, like Alternatives 4 and 5, requires soil excavation and off-site disposal is the hardest to implement since removal of a drywell and underground storage tank would be conducted inside the building.

Public concerns consideration: The public will have an opportunity to comment on these alternatives during the public comment period for the draft FS report as required under MTCA.

Provide for reasonable restoration time frame

Alternatives 4 and 5 rank the highest in terms of providing for reasonable restoration time frame. Alternative 3 ranks a little lower since contaminated soils would be left underneath the building until it is demolished. Alternative 2 scores lower since the PCBs in soils are immobilized and contained but are not removed. Alternative 1 scores the lowest.

Consider public comments

As required under MTCA, the draft FS report would be made available for public review and comment. The public would have the opportunity to comment on the proposed alternatives in the FS Report.

Based on the comparisons of the alternatives, Alternative 4 is the remedy that is most permanent to the maximum extent practicable.

9.3 Ecology Expectations

Alternatives 1 and 2 would not meet Ecology's expectation that for sites containing small volumes of hazardous substances, the hazardous substances will be destroyed, detoxified, and/or removed to concentrations below cleanup levels in order to minimize the need for long-term management of contaminated materials. Alternatives 3, 4, and 5 would be consistent with this expectation.